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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,734	05/25/2001	David Bartlett	08364.0019	3454

22852 7590 05/23/2006

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EXAMINER

FLANDERS, ANDREW C

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/856,734

Applicant(s)

BARTLETT ET AL.

Examiner

Andrew C. Flanders

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 61, 62, 64-113, 115, 116 and 119-146 is/are pending in the application.
- 4a) Of the above claim(s) 62, 64-100, 109-113, 116 and 119-138 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 61, 101-108, 115 and 139-146 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection necessitated by Applicant's amendments to the claims that change the scope of the claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 61, 101, 102, 105 – 108, 115, 139, 140 and 143 – 146 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gabai (U.S. Patent 6,920,566) in view of August (U.S. Patent 6,389,055).

Regarding **Claims 61 and 115**, Gabai discloses:

A toy system comprising a toy responsive to a signal (title and abstract), wherein:
the toy comprises: a responder responsive to the data signal (i.e. each toy also comprises a toy control device, operative to receive a wireless signal transmitted by the

computer and to cause each toy to perform an action based on the received signal; col. 13 lines 50 – 60).

Gabai does not explicitly disclose the method of transmission claimed by Applicant, specifically:

the system comprising an encoder for encoding a data signal to form a spread signal, an electro-acoustic transducer for converting the spread signal into a corresponding acoustic signal, and a toy responsive to the acoustic signal, wherein:

the encoder comprises:

- (i) a first receiver operable to receive the data signal;
- (ii) a spreader operable to spread the received data signal to form a spread signal;
- (iii) a modulator operable to modulate the data signal before being spread by said spreader or to modulate the spread signal, onto at least one carrier signal within an audible frequency band of 20 Hz and 20 kHz; and

(iv) an output operable to output the spread signal,

and wherein the toy comprises:

(i) an acousto-electric transducer operable to receive and convert the acoustic signal into a corresponding electrical signal;

(ii) a decoder operable to de-spread and demodulate the electrical signal obtained from said acousto-electric transducer, in order to regenerate the data signal; and

(iii) a responder responsive to the data signal.

August discloses:

an encoder for encoding a data signal to form a spread signal (Fig. 1 element 18),

an electro-acoustic transducer for converting the spread signal into a corresponding acoustic signal (Fig. 1 element 106), wherein:

the encoder comprises:

(i) a first receiver operable to receive the data signal (i.e. receiving the data signal 16 Fig. 1);

(ii) a spreader operable to spread the received data signal to form a spread signal (Fig. 1 element 18);

(iii) a modulator operable to modulate the data signal before being spread by said spreader or to modulate the spread signal, onto at least one carrier signal within an audible frequency band of 20 Hz and 20 kHz (i.e. the encoding of data stream 16 is such that the effect on audio signal 20 is imperceptible; col. 3 lines 10 – 15; Fig. 1 in its entirety and the text accompanying therein, specifically element 20); and

(iv) an output operable to output the spread signal (Fig. 1 element 106);

(i) an acousto-electric transducer operable to receive and convert the acoustic signal into a corresponding electrical signal (i.e. Fig. 1 element 14);

(ii) a decoder operable to de-spread and demodulate the electrical signal obtained from said acousto-electric transducer, in order to regenerate the data signal (Fig. 1 element 26).

Applying August's transmission system to operate in place of the wireless transmission would thus create A toy system with a toy responsive to the acoustic signal and a toy with a responder responsive to the data signal.

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the August's signaling system in place of the wireless transmitter of the Gabai toy. Gabai at least suggests using a spread spectrum method of communication in an alternate configuration; see col. 17 lines 40 – 45 discloses using a spread spectrum full duplex transceiver and col. 37 lines 60 – 67. August suggests using the disclosed invention in other applications such as wireless telephones, computers or other communications systems; col. 15 lines 25 – 30. One would have been motivated to use the communication system disclosed by August in place of the wireless transmission system disclosed by Gabai in order to efficiently transmit data over an audio channel in a home premises (col. 1 line 67 of August) without the data being perceptible to the user.

Regarding **Claim 101**, in addition to the elements stated above regarding claim 61, the combination of Gabai in view of August further discloses:

wherein the responder is operable to generate an output that is discernable to human beings (i.e. the toy may produce a sound; col. 14 lines 22 – 29 in Gabai and the toy performs an action based on the received signal; col. 13 lines 50 – 60 in Gabai).

Regarding **Claim 102**, in addition to the elements stated above regarding claim 101, the combination of Gabai in view of August further discloses:

wherein the responder is operable to cause the toy to output an acoustic signal determined using the data signal (i.e. the toy may produce a sound; col. 14 lines 22 – 29; which would be in response to the received signal; col. 14 lines 29 – 31 in Gabai).

Regarding **Claims 105 and 143**, in addition to the elements stated above regarding claims 101 and 139, the combination of Gabai in view of August further discloses:

wherein the responder is arranged to cause the toy to display a visual signal determined using the signal (i.e. the toy may be instructed to move a portion of itself; col. 14 lines 23 – 29).

Regarding **Claims 106 and 144**, in addition to the elements stated above regarding claims 101 and 139, the combination of Gabai in view of August further discloses:

wherein the responder is arranged to cause a movement of the toy in dependence upon a content of the data signal (i.e. the toy may be instructed to move a portion of itself; col. 14 lines 23 – 29).

Regarding **Claims 107 and 145**, in addition to the elements stated above regarding claims 101 and 139, the combination of Gabai in view of August further discloses:

wherein the responder is arranged to cause a movement of a part of the toy relative to the rest of the toy in dependence upon a content of the data signal (i.e. the toy may be instructed to move a portion of itself; col. 14 lines 23 – 29).

Regarding **Claims 108 and 146**, in addition to the elements stated above regarding claims 61 and 115, the combination of Gabai in view of August further discloses:

wherein the toy further comprises:

a generator operable to generate a data signal (i.e. the toy control device is operative to transmit a signal intended for the computer; col. 14 lines 45 – 47 in Gabai).

The combination fails to disclose wherein the toy further comprises: a spreader operable to spread the generated data signal to form a spread signal and an electro-acoustic transducer operable to receive and to convert the spread signal into an acoustic signal.

August discloses:

a spreader operable to spread the generated data signal to form a spread signal and an electro-acoustic transducer operable to receive and to convert the spread signal into an acoustic signal (Fig. 1 element 18 and element 14).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the August's signaling system in place of the wireless transmitter of the Gabai toy. Gabai at least suggests using a spread spectrum method of communication in an alternate configuration; see col. 17 lines 40 – 45 discloses using a spread spectrum full duplex transceiver and col. 37 lines 60 – 67. August suggests using the disclosed invention in other applications such as wireless telephones, computers or other communications systems; col. 15 lines 25 – 30. One would have been motivated to use the communication system disclosed by August in place of the wireless transmission system disclosed by Gabai in order to efficiently transmit data over an audio channel in a home premises (col. 1 line 67 of August) without the data being perceptible to the user.

Regarding **Claim 139**, in addition to the elements stated above regarding claim 115, the combination of Gabai in view of August further discloses:

wherein said responder is operable to generate an output that is discernable to human beings in dependence upon a content of the re-generated data signal (i.e. the toy may produce a sound; col. 14 lines 22 – 29 in Gabai and the toy performs an action based on the received signal; col. 13 lines 50 – 60 in Gabai)

Regarding **Claim 140**, in addition to the elements stated above regarding claim 139, the combination of Gabai in view of August further discloses:

wherein the responder is operable to cause the toy to output an acoustic signal determined using the data signal (i.e. the toy may produce a sound; col. 14 lines 22 – 29 in Gabai and the toy performs an action based on the received signal; col. 13 lines 50 – 60 in Gabai).

Claims 103 and 141 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gabai (U.S. Patent 6,290,566) in view of August (U.S. Patent 6,389,055) and in further view of Rose (U.S. Patent 4,480,602)

Regarding **Claims 103 and 141**, in addition to the elements stated above regarding claims 102 and 140, the combination of Gabai in view of August further discloses:

wherein the responder comprises a processor operable to output the selected sound file via an electro-acoustic transducer (i.e. the toy control device, receives a signal from the computer and causes each to perform an action based on the received signal; col. 13 lines 50 – 55 in Gabai).

The combination fails to disclose wherein the processor selects one of a plurality of sound files stored in a memory in dependence upon a content of the data signal.

Rose discloses a doll that includes a CPU and a ROM having digital data indicative of speech. Gabai discloses that the toy may reproduce a recorded sound or

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synthesized speech but does not explicitly disclose that this sound is stored within a memory within the toy; col. 14 lines 23 – 29. Applying the memory taught by Rose to the toy disclosed by the combination of Gabai in view of August would read upon the limitation of wherein the processor selects one of a plurality of sound files stored in a memory in dependence upon a content of the data signal.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of the toy in Rose including the ROM with the stored speech to the toy taught by the combination of Gabai in view of August. One would have been motivated to do so to create an interactive toy that stimulates a child's development; see Rose col. 1 lines 58 – 67 and col. 2 lines 1 – 15.

Claims 104 and 142 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gabai (U.S. Patent 6,290,566) in view of August (U.S. Patent 6,389,055). in further view of Rose (U.S. Patent 4,480,602) and in further view of Diamond (U.S. Patent 5,314,336).

Regarding **Claims 104 and 142**, in addition to the elements stated above regarding claims 103 and 141, the combination of Gabai in view of August in further view of Rose fails to disclose wherein the memory is detachable.

Diamond discloses a child's toy that includes a detachable memory that stores a variety of sounds; abstract.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Gabai in view of August in further view of Rose's memory to be detachable as taught by Diamond. One would have been motivated to do so to allow a variety of sounds that may be changed as desired; see Diamond's abstract.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gabai (U.S. Patent 6,773,344), Aldava (U.S. Patent 5,191,615) and Petrovic (U.S. Patent 6,737,957)

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Flanders whose telephone number is (571) 272-7516. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7546. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

acf



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SUPERVISORY PATENT EXAMINER